

**ABSTRACT**

The illustrative embodiment is a simulation system for practicing vascular-access procedures without using human subjects. The simulator includes a data-processing system and a haptics interface device. The haptics device provides the physical interface at which a user interacts with various mechanisms that are intended to enable the user to simulate various aspects of a vascular-access procedure. The haptics device is designed so that its physical form and manner of use are not inconsistent with the experience of performing an actual vascular access procedure.